

In the Claims

Claims remaining in the application are as follows:

1. (Currently amended): A computer-implemented method comprising:
observing communication between a plurality of devices; and
inferring a respective state of at least one device of the plurality of devices based upon
the observing the communication.
2. (Original): The method of claim 1 wherein
the inferring is performed without sending a packet to the at least one device.
3. (Original): The method of claim 1 wherein
the inferring is performed without participating in the communication with the at least
one device.
4. (Original): The method of claim 1 wherein
the inferring is performed only by listening to the communication with the at least one
device.
5. (Original): The method of claim 1 further comprising:
setting a designation for a first device of the plurality of devices to a threat when
the first device receives a packet and
the respective state of the first device is unfulfilled.
6. (Original): The method of claim 5 further comprising:
changing the designation for the first device to a non-threat when subsequent
communication initiated by the first device does not violate a rule for the
communication.
7. (Original): The method of claim 1 further comprising:
setting a designation for a first device of the plurality of devices to a possible threat
when

the communication is initiated by the first device, and
the communication initiated by the first device violates a rule.

8. (Original): The method of claim 7 further comprising:
changing the designation for the first device to a non-threat when subsequent
communication initiated by the first device does not violate a second rule for the
communication.
9. (Original): The method of claim 1 further comprising:
setting a designation for a first device of the at least one device to a possible threat
based upon a packet configuration for a packet sent by the first device as part of
the communication.
- 10.(Original): The method of claim 1 wherein
the respective state of a first device of the at least one device is determined to be
unknown.
- 11.(Original): The method of claim 10 wherein
the respective state of the first device is determined to be unknown when the observing
the communication comprises
observing that the first device fails to respond to the communication sent to the
first device.
- 12.(Original): The method of claim 1 wherein
the respective state of a first device of the at least one device is determined to be
unfulfilled.
13. (Original) The method of claim 12 wherein
the respective state of the first device is determined to be unfulfilled when the
observing the communication comprises
observing an address resolution protocol request comprising a destination
address for the first device, and
observing that the first device does not respond to the address resolution
protocol request prior to expiration of a time limit

14.(Original): The method of claim 12 wherein the respective state of the first device is determined to be unfulfilled when the first device receives an address resolution protocol request.

15.(Original): The method of claim 1 wherein the respective state of a first device of the plurality of devices is determined to be used.

16.(Original): The method of claim 15 wherein the respective state of the first device is determined to be used when the observing the communication comprises observing that the first device performs one of sending and receiving a packet.

17.(Original): The method of claim 15 wherein the respective state of the first device is determined to be used when the observing the communication comprises observing that the first device received a packet when the respective state for the first device was unfulfilled, and observing that the first device sent a reply to the packet within a time limit.

18.(Original): The method of claim 1 wherein the respective state of a first device of the plurality of devices is determined to be virtual.

19.(Original): The method of claim 18 wherein the respective state of the first device is determined to be virtual when the observing the communication comprises observing that the first device received a packet when the respective state for the first device was unfulfilled, and observing that the first device did not send a reply to the packet within a time limit.

20.(Original): The method of claim 1 wherein the respective state of a first device of the plurality of devices is determined to be automatic.

21. (Original): The method of claim 20 wherein the respective state of the first device is determined to be automatic when an automatic reply is programmed to be sent to a second address when the first device receives a packet from the second address.

22. (Original): The method of claim 1 wherein the respective state of the first device is determined to be omitted.

23. (Original): The method of claim 22 wherein the respective state of the first device is determined to be omitted when the observing is programmed to omit communication with the first device from the observing.

24. (Original): The method of claim 1 further comprising: initializing the respective state of at least one device of the plurality of devices to unknown prior to the observing.

25. (Original): The method of claim 1 wherein the plurality of devices communicates via a segment of a network.

26. (Original): The method of claim 1 further comprising: maintaining the respective state for one device of the at least one device in a storage area.

27. (Original): The method of claim 1 wherein storing information about at least one packet of a plurality of packets communicated between the plurality of devices.

28. (Original): The method of claim 27 wherein the information comprises a respective source address and a respective destination address for each packet of the plurality of packets.

29. (Original): The method of claim 27 wherein the information comprises a protocol for each packet of the plurality of packets.

30. (Original): The method of claim 27 wherein the information comprises a time that each packet of the plurality of packets was sent.

31. (Currently amended): A system comprising:
computer-readable media encoded with:

observing means for observing communication between a plurality of devices;
and

inferring means for inferring a respective state of at least one device of the plurality of devices based upon the observing the communication.

32. (Currently amended): The system of claim 31 further comprising:
computer-readable media encoded with:

determining means for determining that the respective state is unknown when the observing the communication comprises

observing that the first device fails to respond to the communication sent to the first device.

33. (Currently amended): The system of claim 31 further comprising:
computer-readable media encoded with:

determining means for determining that the respective state of the first device is unfulfilled when the observing the communication comprises

observing an address resolution protocol request comprising a destination address for the first device, and

observing that the first device does not respond to the address resolution protocol request prior to expiration of a time limit.

34. (Currently amended): The system of claim 31 further comprising:
computer-readable media encoded with:

determining means for determining that the respective state of the first device is

unfulfilled when the first device receives an address resolution protocol request.

35. (Currently amended): The system of claim 31 further comprising:
computer-readable media encoded with:

determining means for determining that the respective state of the first device is used when the observing the communication comprises observing that the first device performs one of sending and receiving a packet.

36. (Currently amended): The system of claim 31 further comprising:

computer-readable media encoded with:

determining means for determining that the respective state of the first device is used when the observing the communication comprises observing that the first device received a packet when the respective state for the first device was unfulfilled, and observing that the first device sent a reply to the packet within a time limit.

37. (Currently amended): The system of claim 31 further comprising:

computer-readable media encoded with:

determining means for determining that the respective state of a first device of the plurality of devices is virtual when the observing the communication comprises observing that the first device received a packet when the respective state for the first device was unfulfilled, and observing that the first device failed to send a reply to the packet within a time limit.

38. (Currently amended): The system of claim 31 further comprising:

computer-readable media encoded with:

determining means for determining that the respective state of the first device is automatic when an automatic reply is programmed to be sent to a second address when the first device receives a packet from the second address.

39. (Currently amended): The system of claim 31 further comprising:

computer-readable media encoded with:

determining means for determining that the respective state of the first device is omitted when

the observing is programmed to omit communication with the first device from the observing.

40. (Currently amended): The system of claim 31 further comprising:
computer-readable media encoded with:
initializing means for initializing the respective state of at least one device of the plurality of devices to unknown prior to the observing.

41. (Currently amended): The system of claim 31 further comprising:
computer-readable media encoded with:
maintaining means for maintaining the respective state for one device of the at least one device in a storage area.

42. (Currently amended): The system of claim 31 further comprising:
computer-readable media encoded with:
storing means for storing information about at least one packet of a plurality of packets communicated between the plurality of devices.

43. (Currently amended): A system comprising:
a computer-readable medium encoded with:
an observing module configured to observe communication between a plurality of devices; and
an inferring module configured to infer a respective state of at least one device of the plurality of devices based upon the observing the communication.

44. (Original): The system of claim 43 wherein the computer-readable medium is further encoded with ~~further comprising:~~
a determining module configured to determine that the respective state is unknown when the observing the communication comprises
observing that the first device fails to respond to the communication sent to the first device.

45. (Original): The system of claim 43 wherein the computer-readable medium is further encoded with ~~further comprising:~~

a determining module configured to determine that the respective state of the first device is unfulfilled when the observing the communication comprises observing an address resolution protocol request comprising a destination address for the first device, and observing that the first device does not respond to the address resolution protocol request prior to expiration of a time limit.

46.(Original): The system of claim 43 wherein the computer-readable medium is further encoded with ~~further comprising~~:

a determining module configured to determine that the respective state of the first device is unfulfilled when the first device receives an address resolution protocol request.

47.(Original): The system of claim 43 wherein the computer-readable medium is further encoded with ~~further comprising~~:

a determining module configured to determine that the respective state of the first device is used when the observing the communication comprises observing that the first device performs one of sending and receiving a packet.

48.(Original): The system of claim 43 wherein the computer-readable medium is further encoded with ~~further comprising~~:

a determining module configured to determine that the respective state of the first device is used when the observing the communication comprises observing that the first device received a packet when the respective state for the first device was unfulfilled, and observing that the first device sent a reply to the packet within a time limit.

49.(Original): The system of claim 43 wherein the computer-readable medium is further encoded with ~~further comprising~~:

a determining module configured to determine that the respective state of a first device of the plurality of devices is virtual when the observing the communication comprises

observing that the first device received a packet when the respective state for the first device was unfulfilled, and
observing that the first device failed to send a reply to the packet within a time limit.

50.(Original): The system of claim 43 wherein the computer-readable medium is further encoded with ~~further comprising~~:

a determining module configured to determine that the respective state of the first device is automatic when
an automatic reply is programmed to be sent to a second address when the first device receives a packet from the second address.

51.(Original): The system of claim 43 wherein the computer-readable medium is further encoded with ~~further comprising~~:

a determining module configured to determine that the respective state of the first device is omitted when
the observing is programmed to omit communication with the first device from the observing.

52.(Original): The system of claim 43 wherein the computer-readable medium is further encoded with ~~further comprising~~:

an initializing module configured to initialize the respective state of at least one device of the plurality of devices to unknown prior to the observing.

53.(Original): The system of claim 43 wherein the computer-readable medium is further encoded with ~~further comprising~~:

a maintaining module configured to maintain the respective state for one device of the at least one device in a storage area.

54.(Original): The system of claim 43 wherein the computer-readable medium is further encoded with ~~further comprising~~:

a storing module configured to store information about at least one packet of a plurality of packets communicated between the plurality of devices.

55. (Currently amended): A computer-readable medium encoded with a computer program comprising:

observing instructions configured to observe communication between a plurality of devices; and

inferring instructions configured to infer a respective state of at least one device of the plurality of devices based upon the observing the communication.

56. (Original): The computer-readable medium of claim 55 further comprising:

determining instructions configured to determine that the respective state is unknown when the observing the communication comprises

observing that the first device fails to respond to the communication sent to the first device.

57. (Original): The computer-readable medium of claim 55 further comprising:

determining instructions configured to determine that the respective state of the first device is unfulfilled when the observing the communication comprises

observing an address resolution protocol request comprising a destination address for the first device, and

observing that the first device does not respond to the address resolution protocol request prior to expiration of a time limit.

58. (Original): The computer-readable medium of claim 55 further comprising:

determining instructions configured to determine that the respective state of the first device is unfulfilled when the first device receives an address resolution

protocol request.

59. (Original): The computer-readable medium of claim 55 further comprising:

determining instructions configured to determine that the respective state of the first device is used when the observing the communication comprises

observing that the first device performs one of sending and receiving a packet.

60. (Original): The computer-readable medium of claim 55 further comprising:

determining instructions configured to determine that the respective state of the first device is used when the observing the communication comprises observing that the first device received a packet when the respective state for the first device was unfulfilled, and observing that the first device sent a reply to the packet within a time limit.

61.(Original): The computer-readable medium of claim 55 further comprising: determining instructions configured to determine that the respective state of a first device of the plurality of devices is virtual when the observing the communication comprises observing that the first device received a packet when the respective state for the first device was unfulfilled, and observing that the first device failed to send a reply to the packet within a time limit.

62.(Original): The computer-readable medium of claim 55 further comprising: determining instructions configured to determine that the respective state of the first device is automatic when an automatic reply is programmed to be sent to a second address when the first device receives a packet from the second address.

63.(Original): The computer-readable medium of claim 55 further comprising: determining instructions configured to determine that the respective state of the first device is omitted when the observing is programmed to omit communication with the first device from the observing.

64.(Original): The computer-readable medium of claim 55 further comprising: initializing instructions configured to initialize the respective state of at least one device of the plurality of devices to unknown prior to the observing.

65.(Original): The computer-readable medium of claim 55 further comprising:

maintaining instructions configured to maintain the respective state for one device of the at least one device in a storage area.

66. (Original): The computer-readable medium of claim 55 further comprising: storing instructions configured to store information about at least one packet of a plurality of packets communicated between the plurality of devices.